Complete Summary

GUIDELINE TITLE

Guidelines for colonoscopy surveillance after cancer resection: A consensus update by the American Cancer Society and US Multi-Society Task Force on colorectal cancer.

BIBLIOGRAPHIC SOURCE(S)

Rex DK, Kahi CJ, Levin B, Smith RA, Bond JH, Brooks D, Burt RW, Byers T, Fletcher RH, Hyman N, Johnson D, Kirk L, Lieberman DA, Levin TR, O'Brien MJ, Simmang C, Thorson AG, Winawer SJ. Guidelines for colonoscopy surveillance after cancer resection: a consensus update by the American Cancer Society and US Multi-Society Task Force on Colorectal Cancer. CA Cancer J Clin 2006 May-Jun;56(3):160-7. [66 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Colorectal cancer

GUIDELINE CATEGORY

Diagnosis
Evaluation
Prevention

Risk Assessment
Screening

CLINICAL SPECIALTY

Colon and Rectal Surgery
Family Practice
Gastroenterology
Geriatrics
Internal Medicine
Oncology

INTENDED USERS

Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Nurses
Physician Assistants
Physicians
Public Health Departments

GUIDELINE OBJECTIVE(S)

To provide guidance for appropriate use of colonoscopy surveillance in patients after colorectal cancer resection

TARGET POPULATION

Patients with resected colorectal cancer:

- Endoscopically resected Stage I colorectal cancer
- Surgically resected Stage I, II, and III cancers
- Stage IV cancer resected for cure

INTERVENTIONS AND PRACTICES CONSIDERED

Postcancer resection surveillance colonoscopy, including

- Consideration of interval between subsequent colonoscopies
- High-quality perioperative clearing by preoperative colonoscopy or, in the case of obstructing colon cancers, computed tomography colonography with intravenous contrast or double contrast barium enema followed by colonoscopy 3 to 6 months after resection
- Periodic examination of the rectum by rigid or flexible proctoscopy or endoscopic ultrasound to detect local recurrence

MAJOR OUTCOMES CONSIDERED

- Detection of metachronous colorectal neoplasms at a surgically curable stage

- Complication rates
- Rates of local recurrence of colon and rectal cancers
- Survival from recurrent colorectal cancer

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The literature search sought to identify randomized controlled trials and cohort studies in which patients with resected colorectal cancer and perioperative clearing of synchronous neoplasia by colonoscopy were followed to detect recurrent and/or metachronous neoplasms.

The guideline developers searched the medical literature using MEDLINE (1966-January 17, 2005), the Cochrane Database of Systematic Reviews (fourth quarter 2004 update), and the Database of Abstracts of Reviews of Effects (fourth quarter 2004 update). In MEDLINE, subject headings for colorectal neoplasms were combined with subheadings and keywords for "surgery," "resection," "colonoscopy," "surveillance," and "follow-up" to identify relevant citations. Only studies published in the English language were included. Surveillance studies in patients with inflammatory bowel disease or hereditary nonpolyposis colorectal cancer (HNPCC) were specifically excluded. Keyword searches were also performed in the Cochrane Database of Systematic Reviews and the Database of Abstracts of Reviews of Effects to identify any additional systematic reviews. In addition, a manual search was performed using references from retrieved reports, review articles, guidelines, meta-analyses, editorials, and textbooks of gastroenterology.

Articles were excluded if there was no evidence of perioperative colonoscopic clearing or if a modality other than colonoscopy (flexible sigmoidoscopy, barium enema) was used for perioperative clearing.

NUMBER OF SOURCE DOCUMENTS

A total of 66 studies were retrieved for detailed evaluation, and 43 were excluded: 26 because of incomplete perioperative colonoscopic clearing or because this was accomplished with modalities other than colonoscopy, 13 did not pertain to the focus of the guideline developer's paper, three were reports of work in progress that were published in final form in other studies included in the developer's analysis, and one reported the preliminary results of an ongoing trial. The remaining 23 studies were included in the analysis.

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Evidence tables were created to summarize the studies and were circulated to members of the US Multi-Society Task Force and the American Cancer Society (ACS) Colorectal Cancer Advisory Committee.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Evidence tables were created to summarize the studies and were circulated to members of the US Multi-Society Task Force and the American Cancer Society (ACS) Colorectal Cancer Advisory Committee. The evidence was reviewed and recommendations developed at a joint meeting.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Postcancer Resection Surveillance Colonoscopy Recommendations

1. **Patients with colon and rectal cancer should undergo high quality perioperative clearing**. In the case of nonobstructing tumors, this can be done by preoperative colonoscopy. In the case of obstructing colon cancers, computed tomography colonography with intravenous contrast or double contrast barium enema can be used to detect neoplasms in the proximal colon. In these cases, a colonoscopy to clear the colon of synchronous disease should be considered 3 to 6 months after the resection if no unresectable metastases are found during surgery. Alternatively, colonoscopy can be performed intraoperatively.
2. **Patients undergoing curative resection for colon or rectal cancer should undergo a colonoscopy 1 year after the resection (or 1 year following the performance of the colonoscopy that was performed to clear the colon of synchronous disease)**. This colonoscopy at 1 year is in addition to the perioperative colonoscopy for synchronous tumors.
3. **If the examination performed at 1 year is normal, then the interval before the next subsequent examination should be 3 years**. If that colonoscopy is normal, then the interval before the next subsequent examination should be 5 years.
4. **Following the examination at 1 year, the intervals before subsequent examinations may be shortened if there is evidence of hereditary nonpolyposis colorectal cancer or if adenoma findings warrant earlier colonoscopy.**
5. **Periodic examination of the rectum for the purpose of**

identifying local recurrence, usually performed at 3- to 6-month intervals for the first 2 or 3 years, may be considered after low anterior resection of rectal cancer. The techniques utilized are typically rigid proctoscopy, flexible proctoscopy, or rectal endoscopic ultrasound. These examinations are independent of the colonoscopic examinations described above for detection of metachronous disease.

Additional Recommendations Regarding Postcancer Resection Surveillance Colonoscopy

1. These recommendations assume that colonoscopy is complete to the cecum and that bowel preparation is adequate.
2. There is clear evidence that the quality of examinations is highly variable. A continuous quality improvement process is critical to the effective application of colonoscopy in colorectal cancer prevention.
3. Endoscopists should make clear recommendations to primary care physicians about when the next colonoscopy is indicated.
4. Performance of fecal occult blood test is discouraged in patients undergoing colonoscopic surveillance.
5. Discontinuation of surveillance colonoscopy should be considered in persons with advanced age or comorbidities (with less than 10 years of life expectancy), according to the clinician's judgment.
6. Surveillance guidelines are intended for asymptomatic people. New symptoms may need diagnostic workup.
7. Chromoendoscopy (dye-spraying) and magnification endoscopy are not established as essential to screening or surveillance.
8. Computed tomography

colonography (virtual colonoscopy) is not established as a surveillance modality.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Detection of metachronous colorectal cancers at a surgically curable stage, as well as the prevention of metachronous cancers through identification and removal of adenomatous polyps

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Limitations in the Selected Studies

Some limitations were identified in interpreting the selected studies on postcancer surveillance colonoscopy literature. For example, the term "metachronous cancer" had variable definitions. In some instances, it was based on the site of tumor appearance within the colon, and in others it was based on time after resection of the initial primary. Many studies made no mention of whether patients may have had hereditary nonpolyposis colorectal cancer. In some cohorts, there was incomplete follow up of patients. Surveillance intervals were different across studies. Some studies did not clearly separate metachronous tumors from anastomotic recurrences or anastomotic from local or regional recurrences. In some cases, there was also failure to report the stage of metachronous cancers and whether or not they were resectable for cure at the time they were diagnosed. In some studies, it was not clear whether colonoscopies were routine procedures in symptomatic surveillance patients versus diagnostic procedures based on symptoms or laboratory findings. Colonoscopy completion rates and complication rates were commonly not reported, and there was also frequently lack of information on mortality rates. Despite these limitations, a number of

clinically relevant trends are evident regarding colorectal cancer recurrence, metachronous cancer, and the utility of surveillance procedures in patients with resected colorectal cancer.

The recommendation to perform a colonoscopy at 1 year does not diminish the need for high quality in the performance of the perioperative clearing examination(s) for synchronous neoplasms.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Rex DK, Kahi CJ, Levin B, Smith RA, Bond JH, Brooks D, Burt RW, Byers T, Fletcher RH, Hyman N, Johnson D, Kirk L, Lieberman DA, Levin TR, O'Brien MJ, Simmang C, Thorson AG, Winawer SJ. Guidelines for colonoscopy surveillance after cancer resection: a consensus update by the American Cancer Society and US Multi-Society Task Force on Colorectal Cancer. CA Cancer J Clin 2006 May-Jun;56(3):160-7. [66 references] PubMed

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 May

GUIDELINE DEVELOPER(S)

American Cancer Society - Disease Specific Society
American Gastroenterological Association Institute - Medical Specialty Society

SOURCE(S) OF FUNDING

American Cancer Society, American College of Gastroenterology, American Gastroenterological Association, American Society for Gastrointestinal Endoscopy

GUIDELINE COMMITTEE

American Cancer Society Advisory Group on Colorectal Cancer, US Multi-Society Task Force on Colorectal Cancer

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the American Cancer Society Web site.

Print copies: Available from the American Cancer Society, 250 Williams St., Suite 600, Atlanta, GA 30303; Web site: www.cancer.org.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on February 4, 2008. The information was verified by the guideline developer on February 29, 2008.

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